of wound healing and amputation rates for becaplermin and non-becaplermin DFU cohorts over a 1-year time period. Outcome data used in the analysis were derived from a propensity score matched cohort of 24,898 subjects with DFU from the Curative Health Services database from 1998-2004 who were followed for 20 weeks. Primary outcomes of interest were ulcer-free weeks and rates of amputation. Costs for amputation and becaplermin gel*were derived from standard cost references and medical supply wholesalers. Total weekly costs per episode of DFU care were estimated from a large retrospective claims database. Transition probabilities for healing and amputation were derived from the aforementioned propensity score matched cohorts. Ulcer recurrence was estimated from the medical literature. Utilization for becaplermin was calculated using the manufacturer's recommended dosing algorithm. The economic perspective taken was that of the payer. Costs are reported in 2013 US dollars. **RESULTS:** Overall, 2,394 (9.6%) received becaplermin. Of those who received becaplermin, 33.5% healed at 20 weeks compared to 26.5% who did not receive becaplermin (p<0.0001). In addition, the percent of patients requiring amputation were significantly (p<0.0001) lower in the becaplermin cohort (4.9% versus 6.4%, respectively). Patients treated with becaplermin had substantially higher ulcer-free weeks compared to non-becaplermin patients (16.1 versus 12.5 weeks, respectively). Expected annual direct costs for DFU were $20,885 for becaplermin and $23,506 for non-becaplermin. **CONCLUSIONS:** Becaplermin was economically dominant over standard therapy, providing better outcomes at a lower cost in patients with DFU. In addition, becaplermin is more effective in wound healing and preventing amputation, thereby decreasing long-term costs for DFU. *Regranex®, Smith & Nephew Biotherapeutics, Fort Worth, Texas

PDB65

COST-EFFECTIVENESS OF SMALL INTESTINAL SUBMUCOSA EXTRACELLULAR MATRIX ON WOUND CLOSURE IN PATIENTS WITH DIABETIC FOOT ULCER

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OBJECTIVES: Determine the cost-effectiveness of small intestinal submucosa extracellular matrix (SISEM)* relative to human fibroblast-derived dermal substitute (HF-DDS)†on wound closure for the treatment of diabetic foot ulcers (DFUs). **METHODS:** A 2-stage Markov model was used to predict the expected costs and outcomes of wound closure for SISEM and HF-DDS. Outcome data used in the analysis were taken from a 12-week randomized clinical trial that directly compared SISEM and HF-DDS. Twenty-six patients completed the study; 13 for SISEM and 13 for HF-DDS. The primary outcome of interest was ulcer-free days. Transition probabilities for the Markov states were estimated from the clinical trial. Resource utilization was based on the treatment regimen used in the clinical trial. Costs were derived from standard cost references and medical supply wholesalers. The economic perspective taken was that of the payer. No cost discounting was performed due to the short duration of the study. **RESULTS:** Ten wounds closed in the SISEM group (77%), with an average time to closure of 36 days, while 11 wounds closed in the HF-DDS group (85%), with an average closure time of 41 days. No significant difference was found in the time to closure or in the percentage of wound closure between the two groups (p=0.73). Expected direct costs per patient for DFU were $2,949 for SISEM and $5,282 for HF-DDS. Patients treated with HF-DDS incurred total treatment costs that were approximately 1.8 times higher than those treated with SISEM. The estimated cost per ulcer-free day was more than 1.5 times higher HF-DDS vs. SISEM. **CONCLUSIONS:** SISEM yielded similar outcomes at a lower cost in patients with DFU. Health care providers should consider SISEM as a cost-saving alternative to HF-DDS. *OASIS®, Smith & Nephew Biotherapeutics, Fort Worth, Texas †Dermagraft®, Shire Regenerative Medicine Inc., San Diego, California

PDB66

ADDING VILDAGLIPTIN TO STANDARD CARE IN PATIENTS WITH TYPE 2 DIABETES IN COLOMBIA- A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: Vildagliptin is a DPP-4 inhibitor available in Colombia for the treatment of diabetes mellitus as monotherapy or in combination with metformin, sulfonylureas, or insulin. Our aim was to determine the cost-effectiveness of the addition of vildagliptin to metformin, or sulfonylureas for the management of type 2 diabetes in Colombia. **METHODS:** We developed a hybrid decision Markov model to simulate the level of glycemic control and the health states associated with macrovascular complications (myocardial infarction, disabling stroke, and heart failure), nephropathy and death in a hypothetic cohort of patients with type 2 diabetes. Transition probabilities and utilities were derived from published trials and validated with local clinical experts. Costs were calculated based on resource use from local clinical guidelines and databases from the Ministry of Health and private institutions. The base case was developed based on the demographic characteristics of patients with type 2 diabetes in Colombia with a mean age of 59 years. The analysis was performed from the payer perspective for a time horizon of 20 years. Multivariate sensitivity analysis was performed. **RESULTS:** Our results show that the addition of vildagliptine to metformine yielded an incremental effectiveness of 0.83 QALY's over the 20 years of this cohort when compared to metformine alone. The addition of vildagliptine to metformine + glimepiride combination yielded an minor increase in QALY's of only 0.27. Incremental cost for the addition of vildagliptine to metformine was $COP 3,626,000 ($1,900 USD). The incremental cost of the addition of vildagliptine to the combination of metformine was $COP 9,713,169 ($5,100 USD). The ICER for the addition of vildagliptine to metformine was $COP 4,358,350 ($2,500 USD) and to metformine + glimepiride was $ COP 35,697,647 ($18,700 USD). **CONCLUSIONS:** The addition of vildagliptine to metformine and metformine+glimepiride is a cost-effective alternative for the treatment of diabetes type 2 in Colombia.

PDB67

COMPARATIVE COST-EFFECTIVENESS OF BECAPLERMIN GEL ON WOUND HEALING IN PATIENTS WITH DIABETIC FOOT ULCER: CHANGES IN WOUND SURFACE AREA

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OBJECTIVES: Determine the cost-effectiveness of becaplermin gel for the treatment of diabetic foot ulcers (DFU) relative to good wound care (GWC) alone. **METHODS:** Wound surface area (WSA) reduction rates were used to predict the expected costs and outcomes of wound healing for becaplermin versus GWC cohorts over a 1-year time horizon. Changes in WSA were taken from the Phase 3 pivotal trials. The outcomes of the analysis include the average percent reduction of baseline WSA, the direct costs of DFU therapy and the cost per centimeter squared of WSA reduction. The costs for becaplermin gel and DFU patient evaluation and management were derived from standard cost references. Becaplermin utilization was calculated using the manufacturer's recommended dosing algorithm. The economic perspective was that of the payer. Costs are reported in 2013 US dollars. **RESULTS:** The average WSA at baseline was 2.2 centimeters squared. At 20 weeks in the clinical study the becaplermin group demonstrated a statistically higher probability of complete wound closure compared to the GWC group (p=0.015) at 50% versus 35%, respectively. Given the reported WSA reduction rates, becaplermin treated DFU were expected to close 100% at 27 weeks while the GWC group reached an expected 88% reduction in WSA at 52 weeks. When costs were compared by wound closure rates, the cost per 1 centimeter reduction in WSA was $1,285 in the becaplermin group compared to $3,446 in the GWC group. The total expected direct cost of DFU care across the 1-year time horizon was estimated at $6,702 in the GWC group compared to $2,827 in the becaplermin group. **CONCLUSIONS:** DFU patients treated with becaplermin experienced better clinical outcomes than those treated with GWC alone. As a result of the improved outcomes becaplermin demonstrated economic dominance over GWC providing better outcomes at a lower direct cost.

PDB68

COMPARATIVE COST EFFECTIVENESS OF METFORMIN-BASED ORAL HYPOGLYCEMIC THERAPY IN POPULATION-BASED DATABASE

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OBJECTIVES: Although metformin remained the mainstay of oral hypoglycemic agent (OHA), patients receiving combined OHAs significantly increased. We aimed to differentiate real-world effectiveness and economic benefit of metformin-based OHAs, from the perspective of Taiwan's National Health Insurance (NHI). **METHODS:** The NHI Research Database 1999 – 2012 was used, which was derived from the claims of Taiwan NHI, a mandatory-enrollment and single-payment system created in 1995, covering over 99% of the population. Four metformin-based cohorts were extracted: one reference group was metformin plus sulphonylureas (Met-SU), and three comparison groups were metformin plus acarbose (Met-ACA), metformin plus thiazolidinediones (Met-TZD), and metformin plus meglitidine. By using propensity scores, each comparison cohort subject was 1:1 matched to the reference subject on demographics and comorbidity. The effectiveness outcome of interest was diabetes associated cardiovascular disease (CVD) complication risk. Only direct medical costs were included (expressed in 2012 U.S. dollars). A Markov model was applied to project lifetime effectiveness and economic outcomes, discounted at 3% per annum. Bootstrapping technique was used for assessing uncertainty in cost-effectiveness analyses. **RESULTS:** The age-gender weighted average lifetime costs was $94,112.5, of which 61% was attributed to diabetic complications and the managing CVD accounted for 67% of total complication costs. The estimated CVD risk was 34%, with the highest in Met-SU and the lowest in Met-TZD (40% vs. 31%, p<.05). After a 10 year follow-up, average expenditure in Met-TZD was highest, due to higher drug acquisition price of TZD. However, over a lifetime, Met-ACA had the highest spending, most attributed to managing diabetic complications. The sensitivity analysis consistently demonstrated the cost-effectiveness of Met-TZD vs. other metformin-based therapies. **CONCLUSIONS:** Over a lifetime, Met-TZD combination was the least expensive and most effective in lowering CVD risk. The results would inform clinical selection of "add-on" therapy in patients with inadequately controlled by metformin.

PDB69

COST-EFFECTIVENESS OF LIRAGLUTIDE FOR SUBJECTS WITH TYPE 2 DIABETES IN SPAIN

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OBJECTIVES: Metformin forms the first-line therapy for patients with type 2 diabetes, but the majority require treatment intensification at some stage due to the progressive nature of the disease. The 1860-LIRA-DPP4 trial showed that, at 52 weeks, liraglutide exhibited greater improvements compared with sitagliptin in HbA1c, blood pressure, serum lipids and BMI in patients with diabetes inadequately controlled on metformin monotherapy. This study compared the long-term clinical and cost implications associated with liraglutide and sitagliptin for subjects with type 2 diabetes in Spain. **METHODS:** Data were taken from the 1860-LIRA-DPP4 trial randomized, controlled trial at 52 weeks, in which adults with type 2 diabetes were randomly allocated to receive either 1.8mg liraglutide or 100mg sitagliptin daily in addition to metformin. Long-term (patient lifetime) projections of clinical outcomes and direct costs (2012 EUR) were made using a published and validated model of type 2 diabetes. Outcomes were discounted at 3% annually. Sensitivity analyses were performed and support the findings. **RESULTS:** Liraglutide was associated with improved clinical outcomes over sitagliptin in terms of life expectancy (14.24 versus 13.87 years) and quality adjusted life-expectancy (9.24 versus 8.84 quality-adjusted life years [QALYs]). Improved clinical outcomes were driven by improved